

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**  
**FACT SHEET**  
(pursuant to NAC 445A.236)

**Permittee Name:** City of Yerington  
P.O. Box 479  
Yerington, NV 89447

**Permit Number:** NEV40033

**Facility Location:** Yerington Wastewater Treatment Facility (WWTF)  
215 Trowbridge  
Yerington, Lyon County, NV 89447  
Latitude: 39° 00' 00"N, Longitude: 119° 09' 44"W  
Township 13N, Range 25E, SW¼ SW¼ Section 11

**Outfall Location:** Site: Mason Valley Wildlife Management Area (MVWMA)  
Operator: Nevada Department of Wildlife (NDOW), #NEV92035  
Discharge Point: Cinnamon Pond Mixing Pool  
7 miles north-northeast of the Yerington WWTF, Lyon County  
Latitude: 39° 03' 47"N, Longitude: 119° 06' 40"W  
Township 14N, Range 26E, Section 19

**General:** The Yerington WWTF is located at 215 Trowbridge, Yerington, Lyon County, Nevada, due northwest of the municipal airport. The treatment facility serves approximately 2,800 residents in the City of Yerington. Wastewater influent is generated from residential housing and commercial businesses (e.g., restaurants, casinos, motels, etc.) and is considered domestic (sanitary) in composition. The facility was issued a minor revision in August 2001 to waive an annual priority pollutants profile due to the closure of an institutional laundry operation in 2000. The city's influent is pumped to the facility from two lift stations. The influent is not screened or ground (comminution) prior to treatment. The treatment facility includes two 1.0-acre (ea.) primary and two 1.7-acre (ea.) secondary wastewater treatment ponds (cells), which are HDPE-lined. A monitoring well (MW-1) is installed 20 feet northeast of the secondary cell berms to monitor leakage from any of the four basin liners. To date, no leakage is indicated. The 30-day average influent flow is less than one-half of the 30-day average design capacity, so two of the four treatment cells are off-line. Two 20-Hp (primary cell) and two 7.5-Hp (secondary cell) aerators are cycled at the facility to maintain minimum dissolved oxygen levels (e.g., for odor control) and meet secondary treatment (i.e., biological oxidation) standards.

The treated effluent is dosed with sodium hypochlorite (bleach) in an effluent control structure prior to discharge to Cinnamon Pond, which is located seven miles north of the WWTF. Under normal operation, up to 0.57 MGD of effluent can be discharged via gravity flow in a 10 in. diameter PVC pipeline. When this pipeline is not available, effluent is pumped to Cinnamon Pond in two 6 in. diameter PVC pipelines. If all three of the export pipelines were unavailable, the facility would discharge any overflow to an adjacent irrigation ditch, which would require Division notification. From 1974 to 1993, this irrigation ditch was used to deliver the city's effluent to a pasture for flood irrigation.

The effluent export pipelines also function as a chlorine contact chamber due to the residence time during transport. The effluent outfall is a concrete cascade aerator located at the Cinnamon Pond mixing pool, which is constructed at the south end of Cinnamon Pond. The mixing pool blends treated municipal effluent with Walker River diversion water to form a 125-acre wetland, which provides wildlife habitat (e.g., waterfowl) and managed hunting recreation. Cinnamon Pond is not a recognized game fish habitat, and fish production is mainly limited to rough fish, e.g., carp. Cinnamon Pond is not stocked with game fish by NDOW. The effluent is disinfected since human contact is possible in the north end of Cinnamon Pond, especially during duck hunting season. The south end (mixing pool) of Cinnamon Pond is fenced and posted to restrict public access.

The facility has hired an engineering consultant to prepare a Sewer Master Plan Report for the City of Yerington. The city is investigating the cost and options for upgrading the collection system and improving treatment facility operations. The Division requests that the City of Yerington submit a copy of this report (see Schedule of Compliance).

**Flow:** The facility is permitted for a 30-day average design treatment capacity of 0.71 MGD, and the 30-day average flow is presently 0.27 MGD, equivalent to 95 gpd/resident. The City of Yerington separately meters the influent and effluent flow. Influent flow metering is required to assess treatment demand and ensure that existing design capacity is adequate. Under the terms of a Cooperative Agreement between the City of Yerington and NDOW, the city meters the effluent flow and is required to limit the discharge to Cinnamon Pond to 660 acre-feet per year (AF/yr). Presently, the discharge to Cinnamon Pond is 300 AF/yr.

**Receiving Water Characteristics:** The monitoring well at the treatment facility indicates that depth to groundwater at the north end of the city is 11 ft. below ground surface (bgs). Depth to groundwater at MVWMA is reported to be 33 ft. bgs (ref. Well "B"). Cinnamon Pond is an unlined wetland habitat, and as such, permits seepage to groundwater of the State. The wetland habitat does provide beneficial effluent polishing and vegetative nutrient uptake. To date, the Division has not required groundwater monitoring at Cinnamon Pond. Groundwater flow at the Cinnamon Pond outfall is reported to be west-northwest towards the Walker River. MVWMA has been issued discharge permit #NEV92035, which authorizes NDOW to use treated effluent from the City of Yerington (#NEV40033) and the Mason Valley Fish Hatchery (#NEV92035) for wetland management purposes.

**Proposed Effluent Limitations and Special Conditions:**

**Table 1: Plant Discharge Limitations**

| PARAMETER  | DISCHARGE LIMITATIONS |               | MONITORING REQUIREMENTS |                         |
|--|-----------------------|---------------|-------------------------|-------------------------|
|  | 30-Day Average        | Daily Maximum | Measurement Frequency   | Sample Type             |
| Flow, MGD (Influent)                                       | 0.71                  | -             | Continuous              | Influent Flow Meter     |
| Flow, MGD (Effluent)                                       | 0.71                  | 0.78          | Continuous              | Effluent Flow Meter     |
| Annual Discharge to Cinnamon Pond, acre-feet/yr (Effluent) | 660                   |               | Quarterly               | Totalized Effluent Flow |

|   |                   |     |         |           |
|---|-------------------|-----|---------|-----------|
| CBOD, mg/L (Influent)   | Monitor & Report  |     | Monthly | Composite |
| CBOD, mg/L (Effluent)   | 30                | 45  | Monthly | Discrete  |
| TSS, mg/L (Influent)  | Monitor & Report  |     | Monthly | Composite |
| TSS, mg/L (Effluent)  | 90                |     | Monthly | Discrete  |
| pH, Std. Units (Effluent)   | Between 6.0 – 9.0 |     | Monthly | Discrete  |
| Fecal Coliform, c.f.u. or mpn/100 ml (Sample effluent at cascade aerator outfall) | 200               | 400 | Monthly | Discrete  |

**Table 2: Groundwater Monitoring (MW-1)**

| PARAMETER                 | GROUNDWATER LIMITATIONS | MONITORING REQUIREMENTS |                   |
|---------------------------|-------------------------|-------------------------|-------------------|
|                           |                         | Measurement Frequency   | Sample Type       |
| TDS, mg/L                 | Monitor & Report        | Quarterly               | Discrete          |
| Chlorides, mg/L           | Monitor & Report        | Quarterly               | Discrete          |
| Nitrate as N, mg/L        | 10.0                    | Quarterly               | Discrete          |
| Depth to Groundwater, ft  | Monitor & Report        | Quarterly               | Field Measurement |
| Groundwater Elevation, ft | Monitor & Report        | Quarterly               | Field Measurement |

**Rationale for Permit Requirements:** Discharge limitations in Table 1 require the effluent to meet secondary treatment (i.e., biological oxidation) standards and be disinfected to meet the fecal coliform limits applicable at the Cinnamon Pond cascade outfall structure. Discharge limitations in Table 2 require the lined treatment cells to be maintained without leakage or defects to protect the shallow groundwater in the City of Yerington.

**Schedule of Compliance:** The Permittee shall submit the following items to the Division for review and approval (**all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control**):

- Within one hundred and eighty (180) days of the permit issuance date, the Permittee shall submit a revised copy of an Operations & Maintenance (O&M) Manual for the wastewater treatment facility, prepared in accordance with the Division's WTS-2 guidance: *Minimum Information Required for an Operations and Maintenance Manual*. This document shall be

wet stamped and signed by a Nevada Professional Engineer (P.E.).

- Within one hundred and eighty (180) days of the permit issuance date, the Permittee shall submit a copy of the Yerington Sewer Master Plan Report.

**Procedures for Public Comment:** The Notice of the Division's intent to issue (renew) a discharge permit to the City of Yerington, subject to the conditions contained within the permit is being sent to the **Mason Valley News** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **November 3, 2003 by 5:00 P.M.** A copy of the public notice and fact sheet can also be downloaded from the Division's website at the following address: <http://ndep.nv.gov/admin/public.htm>

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:** The Division has made the tentative determination to issue (renew) the proposed discharge permit for a period of five (5) years.

Prepared by: Mark A. Kaminski, P.E.  
Staff Engineer III  
Bureau of Water Pollution Control

Date: September 29, 2003

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